

Patent Abstracts of Japan

PUBLICATION NUMBER : 2000040526
PUBLICATION DATE : 08-02-00

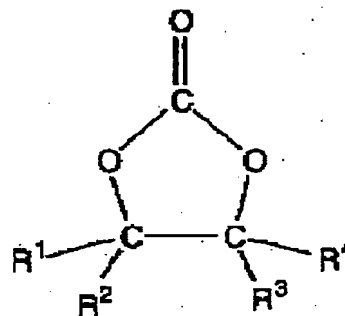
APPLICATION DATE : 19-05-99
APPLICATION NUMBER : 11138467

APPLICANT : MITSUI CHEMICALS INC;

INVENTOR : ISHITOKU TAKESHI;

INT.CL. : H01M 10/40 C07D317/34 H01M 4/02
H01M 4/58

TITLE : NONAQUEOUS ELECTROLYTE FOR
SECONDARY BATTERY AND
NONAQUEOUS ELECTROLYTE
SECONDARY BATTERY



ABSTRACT : PROBLEM TO BE SOLVED: To retard reduction reaction of a solvent and to enhance charge/ discharge efficiency even when high crystalline carbon such as graphite is used in a negative electrode by constituting an electrolyte with a nonaqueous solvent containing cyclic carbonate and an electrolyte:

SOLUTION: Cyclic carbonate represented by the formula retards reduction decomposition of propylene carbonate or the like by graphite in charging and enhances battery characteristics at a low temperature. A lithium salt is preferably used as an electrolyte, lithium metal, a lithium alloy, or a carbon material capable of doping/undoping lithium ions is used as a negative active material, and a composite oxide of lithium and a transition metal, a carbon material, or a mixture of them is used as a positive active material. [In the formula, R1-R4 are each hydrogen atom, 1-7C alkyl group, -CH2OR5, -CH2OCOR6, or 2-7C hydrocarbon group containing non-conjugated unsaturated bond at least one of which having this bond; R5, R6 are 1-7C alkyl group or 2-7C hydrocarbon group containing non-conjugated unsaturated bond].

COPYRIGHT: (C)2000,JPO